

WHAT IS CLAIMED IS:

1. A data access method used in a network system having several node devices connected for communications configured so that each node device can execute certain processing by accessing memories in said several node devices or cache memories at a higher access speed wherein

each node device

executing the speculative access to said memories in the system while reading out, from the tag memory, the tag information as the information related to the data storage status in said cache memories provided in the system, and

deciding whether or not to abolish the data acquired from said memories by said speculative access according to said tag information read out.

2. A data access method used in a network system having several node devices connected for mutual communications configured so that each node device can execute certain processing by reading out data from memories in said several node devices or cache memories at a higher access speed wherein

each node device

executing the speculative readout of the data from said memories in the node devices while reading out,

10 from the tag memory, the tag information as the  
information related to the data storage status in said  
cache memories provided in the system,

judging whether the same data as the data subject  
to said speculative readout is in any of the cache  
15 memories based on said tag information read out,

sending said speculative readout data to the  
processor in the self node device when the same data as  
the data subject to said speculative readout is not  
found in any of the cache memories, and

20 acquiring, when the same data as the data subject  
to said speculative readout is in one of the cache  
memories, such data in said cache memory and sending  
said data to the processor in the self node device.

3. A data access method used in a network system as  
set forth in Claim 2 wherein

said speculative readout data is abolished when  
said data found in the cache memory is acquired and sent  
5 to the processor in the self node device.

4. A data access method used in a network system as  
set forth in Claim 2 wherein

each node device speculatively reads out the data  
from the memory in the self node device while reading  
5 out said tag information from the tag memory.

5. A data access method used in a network system as set forth in Claim 2 wherein

each node device speculatively reads out the data from the memory in the other node device while reading out said tag information from the tag memory.

6. A network system having several node devices connected for communications configured so that each node device can execute certain processing by accessing memories in said several node devices or cache memories at a higher access speed wherein

each node device comprising

access means to speculatively access said memories in the system while reading out, from the tag memory, the tag information as the information related to the data storage status in said cache memories provided in the system and

judgment means to judge whether or not to abolish the data acquired from said memories by said speculative access according to said tag information read out.

7. A network system having several node devices connected by a communication mechanism for mutual communications configured so that each node device can execute certain processing by reading out data from memories in said several node devices or cache memories at a higher access speed wherein

each node device comprising

speculative readout means to execute the  
speculative readout of the data from said memories in  
the node devices while reading out, from the tag memory,  
the tag information as the information related to the  
data storage status in said cache memories provided in  
the system,

a judgment means to judge whether the same data  
as the data subject to said speculative readout is in  
any of the cache memories based on said tag information  
read out, and

a read data processing means which sends said  
speculative readout data to the processor in the self  
node device when the same data as the data subject to  
said speculative readout is judged not existing in any  
of the cache memories and, when the same data is judged  
existing in one of the cache memories, acquires such  
data in said cache memory and sends said data to the  
processor in the self node device.

8. A network system as set forth in Claim 7 wherein  
said data processing means abolishing said  
speculative readout data when said data found in the  
cache memory is acquired and sent to the processor in  
the self node device.

9. A network system as set forth in Claim 7 wherein

said speculative readout means speculatively reads out the data from the memory in the self node device.

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10. A network system as set forth in Claim 7 wherein said speculative readout means speculatively reads out the data from the memory in the other node device.

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11. A network system as set forth in Claim 7 wherein said tag memory is provided in said communication mechanism.

12. A computer readable memory storing a data access program for controlling the data access in a network system having several node devices connected for mutual communications configured so that each node device can execute certain processing by accessing memories in said several node devices or cache memories at a higher access speed wherein

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said data access program executing

speculative access processing for the memories in

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the system while reading out, from the tag memory, the tag information as the information related to the data storage status in said cache memories provided in the system and

processing to judge whether or not to abolish the

15 data acquired from said memories by said speculative  
access according to said tag information read out.

13. A computer readable memory storing a data access  
program for controlling the data access in a network  
system having several node devices connected for mutual  
communications configured so that each node device can  
5 execute certain processing by reading out data from  
memories in said several node devices or cache memories  
at a higher access speed wherein

said data access program executing  
speculative readout processing to read out the  
10 data from said memories in the node devices while  
reading out, from the tag memory, the tag information as  
the information related to the data storage status in  
said cache memories provided in the system,

judgment processing to judge whether the same  
15 data as the data subject to said speculative readout is  
found in any of the cache memories based on said tag  
information read out, and

processing when the same data as the data subject  
to said speculative readout is not found in any of the  
20 cache memories to send said speculative readout data to  
the processor in the self node device and,

processing when the same data as the data subject  
to said speculative readout is found in one of the cache  
memories to acquire such data in said cache memory and

25        send said data to the processor in the self node device.

14.        A computer readable memory storing a data access program for controlling the data access in a network system as set forth in Claim 13 wherein

          said data access program

5            abolishes said speculative readout data when acquiring the data in said cache memory and send such data to the processor in the self node device.

15.        A computer readable memory storing a data access program for controlling the data access in a network system as set forth in Claim 13 wherein

          said data access program

5            speculatively reads out the data from the memories in the self node device while reading out said tag information from the tag memory.

16.        A computer readable memory storing a data access program for controlling the data access in a network system as set forth in Claim 13 wherein

          said data access program

5            speculatively reads out the data from the memories in the other node device while reading out said tag information from the tag memory.